



Bayfield County Aquatic Invasive Species Project



AIS Control Grant #AEPP-022-06

Final Report

Prepared by:

Stefania Strzalkowska – Aquatic Invasive Species Project Coordinator Bayfield County Land & Water Conservation Department AEPP-022-06 Awarded: May 1, 2006
Project Coordinator Hired: August 26, 2006
Project Ended: June 30, 2009

Project Title: Bayfield County Aquatic Invasive Species Education, Prevention, and Planning

Housed under the:

Bayfield County Land & Water Conservation Department

County Conservationist Robert (Butch) Lobermeier

Oversight & Direction:

Aquatic Invasive Species Committee

Chair - Nan Olson Vice Chair - John Kudlas

Jim Crandall Dee Kittleson Tom Thornton Jim Krueger

Matthew Symbal, Fish & Wildlife Biologist, Red Cliff Tribe

And the

Land Conservation Committee

Chair - David Good Vice Chair - James Beeksma

Marco Bichanich

Kenneth "Bucky" Jardine

Peter Tetzner Loretta Skaj

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Executive Summary

The success of this project lies with the many individuals and groups across the county that love their lakes and streams and demonstrate that sentiment with inexhaustible efforts and in many cases, funding, to take care of the water resources. These passion-driven folks are not unique to the county; all across Wisconsin and the nation, individuals and local groups drive conservation. In Bayfield County, in addition to this grass-roots conservation, this Wisconsin Department of Natural Resources Aquatic Invasive Species (AIS) Control Grant project has built a network of support that affirms and strengthens all that happens at the grass roots level.

This network first and foremost includes the county administration. Presently, 6 out of 13 county supervisors are regularly educated on AIS issues as these individuals serve on the Aquatic Invasive Species Committee and the Land Conservation Committee. These individuals are huge advocates for AIS issues and for all the grass roots efforts that go on throughout the county. Other county departments that have given support, have informative interactions, and exchange ideas with the AIS Project Coordinator are the county UW Extension Office, Tourism and Recreation, Sheriff's, Planning and Zoning, Highway, and Emergency Management. The County Administrator also helps to solidify the support. The County Conservationist, as the Land & Water Department head, advocates strongly for invasive species activities at the county level. He also educates numerous lake shore property owners and municipalities on AIS and encourages property owners to eliminate and/or change their shoreline activities to prevent the transfer of AIS. His activities add valuable credence to the AIS Project and have greatly added to its success.

Outside of the county administration, the network includes most natural resource management agencies, some local municipalities, many lake associations, some marinas, local chapters of national conservation groups, local conservation groups, educators, and many individuals. All entities are networked via the Project Coordinator and the County Conservationist for the benefit of addressing AIS issues and implementing the AIS Strategic Plan. This plan outlines activities and guides entities to address 1) education, 2) prevention, 3) monitoring, 4) management and containment, and 5) sustainment of all AIS efforts. The plan was written for all entities, not just the Project Coordinator or the county. For success, it is understood that all entities need to be involved, and they are as the capacity for AIS efforts is building within the county as evidenced by the increasing number of grants and CBCW programs.

Activities in the Strategic Plan are being accomplished to various degrees, and the plan as a whole will be evaluated before December 31, 2009 to see what changes need to be made. As it is, the plan serves as a useful document and a worthy evaluation tool in itself to see how the county is progressing with its AIS goals and objectives.

Of the 31 lakes over 100 acres that receive a fair amount of boat traffic (Appendix D, AlS Strategic Plan), 20 lakes are being covered by consistent Clean Boat Clean Water programs, with a few landings having 24/7 video monitoring set-ups. Of the lakes that also have private access, the lake associations have worked with those owners to put up signs and to help educate users of that access. It is not a realistic solution to staff all landings at all lakes in the county; however, via this project in combination and collaboration with the larger lake associations, most of the priority lakes have a weekend education, prevention, and landing monitoring element.

As of June 2009, based on all available resources and present knowledge, AIS have not increased in the county nor have spread to new water bodies since 2004.* This is a huge accomplishment and achieved with great effort and expense from so many entities. In the municipalities where Eurasian water-milfoil exists, local efforts combined with government support lead the way in management and prevention. This truly is the picture of success—when the top meets the bottom to address and solve a problem. This is the *modus operandi* of the county AIS Project and this method will continue into the future.

*Note, EWM has spread within the Pike Chain of Lakes, but as a chain, it can be loosely considered one water body. Also, purple loosestrife continues to be discovered here and there in the south part of the county but each population is being quickly addressed.

PROJECT BACKGROUND

Before the county AIS project began, grassroots efforts led by lake associations and passionate individuals were on the ground for at least two years, and as much as four for one group, Namakagon Lake Association, Inc. In May 2004, the Educator of the Ashland, Bayfield, Douglas, and Iron County Land Conservation Department (ABDI-LCD, the precursor organization to the Bayfield Land & Water Conservation Department) was awarded a Lake Planning Grant to host a regional AIS Educational Conference in spring of 2005. However, in late summer of 2004, Eurasian water-milfoil (EWM) was found in two areas of the county in the Towns of Barnes and Iron River. At that point, the local grassroots efforts exploded and energized to 'take care of the problem!' One of their efforts was to strongly encourage ABDI-LCD to submit a WDNR AIS Control Grant for a Bayfield County AIS Project/Coordinator. This effort came from the desire to garner support from the county administration as prevention and management schemes work best on a regional scale. Since invasive species know no boundaries, a coordinator at the county-level could network with all entities and levels of government to address the present and potential populations of AIS in the county. ABDI-LCD received the grant award and the Bayfield County AIS Project began.

SIGNIFICANT ACCOMPLISHMENTS

County Support

History

The county became directly involved with AIS issues in fall of 2004 when Eurasian water-milfoil was identified near the Twin Bear County Park landing. A county Ad Hoc AIS Committee was formed in spring 2005 to learn more about 1) AIS, 2) the sponsorship of a grant for the use of herbicide in water, and 3) "... to provide direction and input on the control of exotic aquatic invasive species in Bayfield County bodies of water." (Appendix A) Although this incentive to learn and act was not for the best of situations, it did start numerous actions at the county level that demonstrate the county's commitment to safeguarding its water resources.

County AIS Committee

The county was awarded a WDNR AIS Control grant in spring 2006 to support a coordinator position for a county-wide project. By March 2007, the county adopted an amendatory ordinance that created a long standing Aquatic Invasive Species Committee (Appendix A, Attachments). This committee, established at the highest level of the county government demonstrates fully the county's commitment on AIS issues. The committee is made up of seven individuals, two who are County Supervisors. This committee serves as the oversight for the AIS Project and it receives regular reports from the project coordinator of AIS activities in the county. As the AIS Project is housed under the Land & Water Conservation Department, the Land Conservation Committee also gets regular reports and provides guidance to the project. With these two committees, 6 out of 13 county supervisors are actively involved with AIS issues in the county. For AIS-related policy change and resolutions that are presented to the board, these six supervisors are huge advocates for AIS prevention. They are fully aware of the value and the protection of the water resources and guide the rest of the county board to make decisions with that protection in mind.

Other County Departments

Besides the Land & Water Conservation Department, and the significant efforts by the County Conservationist with AIS education and prevention, two other county entities have given much effort and support to addressing AIS issues. UW Extension, Bayfield County, through the Community Resources Development Agent, has given much expertise and assistance in 1) helping to obtain a county AIS Committee and then 2) guiding the AIS Committee through the strategic planning process. The

agent's knowledge of the history of the county's actions was a great service to establishing the successful tone of the AIS Project. The Director of the Tourism and Recreation Department (TRD) also assisted greatly with the strategic plan and was instrumental in organizing a visit from Governor Doyle and the Secretaries of Tourism and Natural Resource to the Pike Chain of Lakes. Also on the trip were State Senator Robert Jauch and State Representative Gary Sherman. The TRD Director not only saw an opportunity to showcase the county, but to specifically bring attention to a successful AIS effort and partnership in the county. All who attended this 'Governor's Tour' left energized and impressed with this collaborative local effort. TRD also inserts AIS prevention messages in the county tourism guide published yearly and TRD and the county Tourism Committee continue to be supportive of Clean Boat Clean Water programs at the county parks. Additional departments who have assisted AIS efforts—the Office of the Sheriff was instrumental in gaining county board support for the transport ordinance and encouraged all its deputies to follow through with education and enforcement. They have been called upon in matters of the transport ordinance and helped guide the addition of a penalty fee section in the ordinance. The Highway Department guided the posting of signs to clue motorist on the prohibition of transporting aquatic hitchhikers. The Zoning and Planning Office works hand in hand with LWCD on AIS prevention techniques with shoreline restoration mitigations, and Emergency Management is aware of the possibility of AIS transfer from Dry Hydrants and work within WDNR guidelines.

County AIS Strategic Plan

This plan was created over eight months by the AIS Committee with comments and feedback from its advisors, government agencies, lake groups, and many individuals. It was adopted by the county board in April 2008. Its 62 activities covering five goals were written to be as comprehensive and detailed as possible in addressing AIS issues in the county. The goals focus on: 1) education, 2) prevention, 3) monitoring, 4) management and containment, and 5) sustainment of all AIS efforts. In the review process, the most common comment about the plan was, "It's ambitious!" The project coordinator and committee members realized this challenge with the plan's completeness; however, the group consensus was to put every idea/activity related to AIS prevention and education down on paper. Through the implementation of the plan, the activities themselves would demonstrate their value and be dropped or changed depending on their results. Regular evaluation is written into the plan as new science or new information may produce more effective activities or show some to be non-effective. It is a document to guide, yet also to accommodate additional ideas. The plan is a stand-alone document that educates the reader not only on activities to address AIS but also to give the reader information about the county's water resources, the biology behind the problem with AIS, species-specific information, and the history of AIS actions in the county. The plan is available on the Bayfield County website: http://www.bayfieldcounty.org/assets/files/Conservation/AISplan.pdf and was distributed to each municipality, the public libraries, lake groups, and interested individuals within the AIS network across the county. The plan and supporting documents are in the Attachments.

The Transport Ordinance

In February 2007, the Bayfield County Lakes Forum (BCLF) brought a resolution to the attention of the project coordinator and the County Conservationist. This resolution called for a restriction on the transportation of attached aquatic vegetation and animals on boats and equipment. Many felt this transportation matter was a significant inadequacy in the state's 'Illegal to Launch' law (St. 30.715). Although this deficiency in the state law was brought to the legislature's attention, no bills had yet to be created to address this weakness. Local entities, like BCLF, knew a local ordinance could help close the gaps in the state launch law and create a firmer barrier for AIS transport. The County Conservationist turned the resolution over to the Land Conservation Committee (LCC) and after a discussion, the LCC agreed to rewrite it from the county's perspective and to request the creation of a county transport

ordinance. This resolution was presented to the board in May 2007 and was adopted. With the assistance of the Office of the Sheriff and the county Corporate Counsel, an ordinance was written and adopted in October 2007. Although the concerned residents of the county understood this ordinance could only be enforced by county and municipal law enforcement officers, this action demonstrated to all that the county administration was in full support of AIS prevention. It also served as a statement to the state that a regulation restricting the transportation of attached aquatic plants and animals was supported at the local level, and the county no longer was waiting for the state to act on a comparable, and much sought over regulation. As if flood gates were opened, other northern counties developed and adopted their own transport ordinances. By spring 2009, five other counties had transport ordinances, and similar bills are in both chambers of the state legislature. AIS-related county resolutions can be found in Appendix A.



Highway sign (Water Guard Program)



Sign at county landings

The Network

The original project language called for "a network to support and streamline AIS prevention and control efforts." The resulting AIS network exists as a matrix with many layers of connections. One layer can be identified as "Local Natural Resource Management Agencies," another as "State Resource and Educational Entities," and another as "Lake Groups." The project coordinator attempts to work with as many layers and entities as possible, passing along information and resources among and across all of them (Table 1). The key route that established the local agency network was through the interactions of the Northwoods Cooperative Weed Management Area or NCWMA (http://www.northwoodscwma.org/) A Cooperative Weed Management Area (CWMA) is a geographically-defined (not management agency-defined), working group to address all issues with invasive species in that geographical region. A CWMA attempts to diminish geographical and jurisdictional property lines so all managers, be them government, non-profit, or individual property owners can address and control an invasive species problem no matter where it is rooted.

Northwoods Cooperative Weed Management Area

The NCWMA meets monthly to carry out its yearly operation plan based on its Management Plan ratified August 9, 2007. For this project, the information exchange at the monthly meetings, the connecting with other professionals, the sharing of creative ideas and products, and the participation in work days has been invaluable. Notable partners who provide survey data and management of AIS to the county are the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and the USDA Forest Service. Informational benefits (pamphlets and posters) and project ideas come from the National Park Service Exotic Plant Team, the Iron County LWCD/AIS Coordinator, the Forest Ecologist of Glidden WDNR, the Fisheries Biologist with the USDI Fish and Wildlife Service, and the Friends of the St. Croix Headwaters.

Network Support

Other invaluable network relationships are with the individual lake associations. These organizations are on the front line of prevention, monitoring and control. Many have rich and lengthy histories of water quality protection and AIS prevention. Their efforts are commendable. The state is to be commended also. The resources given freely by the UW Extension Lakes Program and staff of WDNR assist this project greatly. By working together more success is seen on the ground. If opportunities like the newer state programs of Water Guards and Water Force come around, the Coordinator taps into them, networking with state and local entities to achieve more on-the-ground efforts for AIS prevention and education. Additional information and professional assistance come from professionals in the States of Maine, Minnesota, New Hampshire and Washington, which all have strong AIS programs. There is no limit to the size of the network; it continues to expand as new information comes from the sciences, the state, and the field.

Table 1. Strength of working relationships/networking – (subjective measure-AIS Project Coordinator).

STRONG			
Iron River Area Lakes Association	Great Lakes Indian Fish & Wildlife Commission (GLIFWC)		
	USDA Forest Service – Washburn District		
Long Lake Property Owners Association			
Namakagon Lake Association, Inc.	USDA Forest Service – Great Divide District		
Lake Owen Association, Inc.	National Park Service Exotic Plant Team		
Delta Area Lake Association	Washburn Marina		
Bony Lake Association	WDNR – local and state staff		
Bayfield County Lakes Forum	UW Extension, county and state		
Town of Barnes/EWM Committee	WI Sea Grant		
Town of Iron River	BC Tourism and Recreation Department		
Town of Grand View	BC Sheriff's Department		
Friends of the St. Croix Headwaters	Vilas County AIS Partnership		
LIGHT			
POA. Inc., Barnes/Eau Claire Lakes Area	USDI Fish & Wildlife Service – Fisheries		
Diamond Lakers, Inc.	Friends of the White River		
Half Moon Lake District	Bad River Watershed Association		
Marengo Lake Association	Wisconsin River Alliance		
BC Zoning and Planning Department	Cities of Bayfield & Washburn		
BC Emergency Management	Other County AIS Coordinators		
BC Highway Department	Ashland Marina		
Chambers of Commerce	Northland College/Siqurd Olson Environmental Institute		
NEEDS SOME BUILDING			
Red Cliff Band of Lake Superior Chippewa	Tri-Lakes Protective Association		
Remaining County Municipalities	Pigeon Lake Association		
BC Forestry Department	Tahkodah Lake District		
Local sportsmen/conservation groups	Other county lake groups		

Outreach & Education

Presentations & Events

Public education was a large part of this project as education goes hand in hand with prevention. Outreach was achieved through both target-audience presentations and general public education at opportune events. The Project Coordinator was available for any outreach event and solicited groups often to present AIS information. In addition to the Coordinator's activities, much education was occurring at the landings via the CBCW programs, as well as from individuals giving AIS-related presentations throughout the county. It is known many non-county presentations are given throughout the county, like a watercraft inspector talking to a classroom of students, or a board member of the Bayfield County Lakes Forum to a service organization, or a passionate individual to a library-sponsored group. These educational exchanges are greatly appreciated and are necessary to keep the awareness of AIS high among county residents. One activity of the strategic plan is to have an AIS Speakers Bureau that will give more structure and support for these speaking occasions.

For print-based education and information, the local newspapers have been open to and helpful in passing along AIS information and news of activities. Both the county-dedicated newspaper, <u>The County Journal</u>, and the regional newspaper, <u>The Daily Press</u>, Ashland, have published many submitted press releases and Letters to the Editor, as well as sending out reporters to local county events. The Coordinator also sends email broadcasts to lake groups, the media, municipalities, officials, and interested individuals whenever there is any update, news, and county information that are related to AIS. Up to date informational pamphlets have been sent to the county's Chambers of Commerce, and the Coordinator tries to keep a line of communication open to this business organizations. Samples of press releases and newspaper articles are in the Attachments.

Workshops

County-directed workshops were fewer than anticipated because many lake associations or towns submitted their own grant projects that contained workshop activities. The Coordinator tried to attend most of these 'local' workshops to build a standardized program across the county. Also, because the Northwest Wisconsin Lakes Conference (NWLC) is held in Bayfield County, and there is usually a workshop component to this conference, the Coordinator directed individuals to attend those workshops. Based on workshop signup sheets, the majority of individuals that attend these NWLC workshops are Bayfield County residents. The Coordinator, at every opportunity, will advertise to lake and sportsmen groups her willingness to present AlS information in a manner tailored to the groups' needs. However, the number of presentations and mini-workshops given remains lower than desired. In May 2009, the Coordinator, along with Sawyer Co. AlS Coordinator hosted a workshop that was tailored more to experienced watercraft inspectors and focused more on enforcement of AlS laws. The local WDNR Conservation Warden and Bayfield County Chief Deputy attended the workshop and added greatly to the information exchange. The coordinator sees this yearly refresher training important to the county program and will continue this in the future. A list of outreach and workshop activities is in Appendix B.

County Fair AIS Display

Clean Boat Clean Waters (CBCW) Programs

2005 was the first year where CBCW programs took root in the county and they were focused in the areas with EWM in lakes. A volunteer workforce made up these first programs, yet the risk of burn-out and inconsistent coverage is high with any volunteer effort that is intense. Inspecting watercraft, educating boaters, and doing this regularly can be intense, especially in busy landings. Even with this intensity of effort, over 100 volunteers in the Barnes and Iron River/Delta area were trained via the state-sanctioned CBCW workshop and staffed the landings most, if not all weekends during the 2005 summer season. They did this again in the 2006 season, doing this without state funding and the efforts were too overwhelming for only a volunteer workforce. Truly, the only way to have consistent and dependable coverage at the landings is to pay watercraft monitors. The towns and county increased their grant submissions and match efforts to obtain enough funds for salaried landing educators. Appendix C summarizes all AIS Control Grants awarded to county entities. These funds greatly help in having consistent prevention and education programs at the landings. And these programs are critical to limit the transfer of AIS between water bodies. Presently, most of the high priority landings/lakes have consistent watercraft inspection programs (Figure 1) and most of the staff is paid primarily via WDNR AIS Control Grants and municipal match.

Another tool in the watercraft monitoring effort is video surveillance. Namakagon Lake Association purchased two cameras for two of the nine landings along this large lake. From a pilot study in Burnett County (2008), video monitoring does have an influence on boater behavior. If an individual knows he is being monitored, he is more likely to follow the recommended prevention steps. Because of the vastness of Lake Namakagon, and the extensive resources needed to staff every landing on the lake, the available video technology can be both a cost-savings and a strong component for long-term monitoring of any particular landing, and for the lake as a whole. Tahkodah Lake District also tried this tool in the 2008 and 2009 seasons, and other lake associations are researching the idea. It is the desire of the county that if this tool is used, that it be in combination with watercraft inspectors and educators.

Coverage at the main inland lake landings varies across the county due to the available resources, but for the popular Pike Chain of Lakes south of Iron River that has persistent beds of EWM, the coverage at Twin Bear Lake Landing, the main access point, is fairly complete from Friday afternoon until Sunday evening. Even still, the board of the Iron River Area Lakes Association would like everyday coverage. Lake Owen Association, Inc. did try everyday coverage in 2008 and 2009. Aquatic plant surveys by environmental consultants in both years resulted in no AIS discovered around the landings. Certainly, this intense effort helped to keep invasive plants out of the lake, but staffing at this level may not be sustainable. Table 2 summarizes CBCW efforts across the county in past years and Appendix D has tables of yearly CBCW data results.

A great assistance to the county project is UW Sea Grant and their sponsorship of Lake Superior watercraft inspectors. In 2008 and 2009, the Coordinator communicated with the AIS Coordinator of WI Sea Grant to obtain information and the schedule of the Lake Superior inspectors. In June 2009, the county was notified of a Water Force (WF) inspector designated for Bayfield County. Again, an opportunity presented itself for more on-the-ground efforts, and the Coordinator took it. Both the WDNR and the county felt this inspector needed to increase coverage of Lake Superior landings. The schedule for the WF inspector was coordinated with Sea Grant inspectors, and double coverage at some landings was planned for additional training and support for the WF inspector. Table 2 lists the inland and Lake Superior landings that have regular coverage.

Figure 1. CBCW Programs across the county. Hours based on per season coverage except for landings that had one visit—that is based across all years.

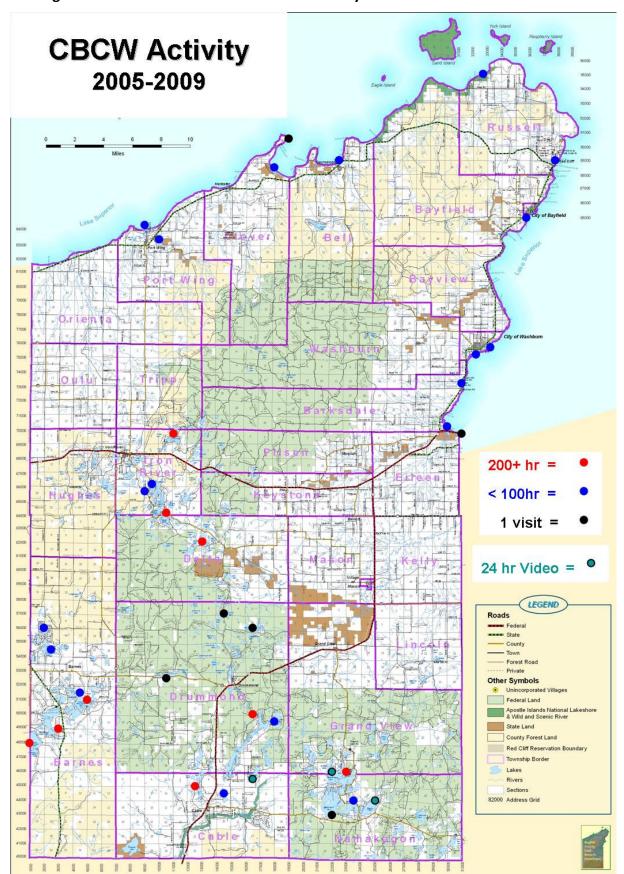


Table 2. Watercraft inspections/surveillance across the county by landing and by lake (including lakes navigable to a landing). Pre-2005 CBCW accomplished by WDNR staff.

Landing	Lake(s)	Year*	Comments
_		Began	
Barnes Town Park	Tomahawk	2005	EWM present; town sponsored, neighbor watched
Buskey Bay – Hyde's	Buskey Bay, Millicent, Hart,	2009	EWM present In Pike Chain of Lakes, various sized
Buskey Bay – Town's	Twin Bear, Eagle, Flynn	2009	beds, total acreage ~ 30; county sponsored
Cable	Cable	2005	Town sponsored
County Rd D landing	Namakagon	2005	Namakagon Lake Assn (NLA) sponsored
Delta	Delta, Hay	2005	County sponsored
Funny's Bay	Namakagon	2007	CBCW & 24/7 video camera sponsored by NLA ('07)
Garden (Namakagon)	Garden/Namakagon	2005	CBCW & 24/7 video camera sponsored by NLA ('07)
Island Lake	Island	2005	Town sponsored
Lake Sup - Bark Bay Pt.		2007	Sponsored by UW Sea Grant & Water Force
Lake Sup - Bayfield		2005	Sponsored by UW Sea Grant & Water Force
Lake Sup - Bell Marina		2008	Sponsored by UW Sea Grant & Water Force
Lake Sup - Little Sand Bay		2005	Sponsored by UW Sea Grant
Lake Sup - Port Wing		2005	Sponsored by UW Sea Grant & Water Force
Lake Sup – Red Cliff		2007	Sponsored by UW Sea Grant
Lake Sup - Washburn	Lake Superior	2007	Sponsored by UW Sea Grant & Water Force
Lakewood Resort	Namakagon	2007	Resort marina mgr checks boats occasionally
Long Lake	Long	2005	Sponsored by Long Lake Property Owners Assn
@ Island Blvd.			(LLPOA) and county ('09)
Long Lake – private (2)	Long	2005	LLPOA regularly informs owners of new information
Lower Eau Claire	Lower Eau Claire, Cranberry	2005	Town sponsored
Metro's Landing private	Owen	2007	Signs on locked gate, Lake Owen Assn (LOA) checks
			regularly
Middle Eau Claire	Middle Eau Claire, Bony	2005	Town sponsored
Perry	Perry	2007	Town sponsored
Namekagon USDA FS	Namakagon (Missionary	2008	USDA FS improved signage; NLA supplements
Campground	Point)		campground host to run CBCW program.
Robinson	Robinson	2005	Town sponsored
Two Lakes Campground	Owen	2008	Campground Mgr periodically does inspection and
			education of boaters; LOA inspects infrequently
Tahkadoh	Tahkadoh	2007	CBCW & 24/7 video camera ('08)
Twin Bear	Buskey Bay, Millicent, Hart,	2005	EWM present In Pike Chain of Lakes, various sized
	Twin Bear, Eagle, Flynn		beds, total acreage ~ 30; county sponsored
Upper Eau Claire	Upper Eau Claire, Birch	2005	Town sponsored
USDA Nat'l Forest landing	Owen	2007	Sponsored by Lake Owen Association, Inc.
– Lk Owen			

^{*} Year is gleaned from Surface Water Integrated Monitoring System (SWIMS) and not all years have been verified with sponsorship group.

Lake Association Activities

Most lake associations in the county are fairly independent of the county project and the larger ones are very active. A few were submitting and receiving lake planning grants long before the AIS Project came to be (Appendix C). One individual of the Iron River Area Lakes Association travelled around the county on her own time and money to help lake groups write grants. Before the county project, the lake groups had a history of seeking state funds to help protect 'their' lakes. To browse Appendix C, one sees how active the larger lake associations are in regards to water quality and AIS prevention and education. A few are venturing into the Lake Management and Planning process. Their efforts of the past and present are very much appreciated by the county and are instrumental in the success of this project.

The Coordinator initiated most of the relationships with the county lake associations and presently keeps the board members informed of events and news through an email broadcast. Through email and phone communication, and visits to annual meetings, the Coordinator tries to keep a high profile with the most active lake associations; she has also assisted some with grant writing. Five lake associations have web sites and the site managers gladly add county material to the sites. Additionally, articles by the Coordinator have been in lake groups newsletters. Although the Coordinator sometimes wishes there was a closer relationship between the county project and the lake groups, in the long run, it is advantageous to the strategic plan that these groups do work more independently and thereby complement all of the county efforts.

Bayfield County Lakes Forum

A notable association that strives to develop political will and lobby for lake-related causes is the Bayfield County Lakes Forum. They were instrumental in obtaining a county AIS project, in educating lake property owners to AIS issues, in obtaining a county transport ordinance, and establishing a water resources consortium of public and private entities. In the past two years they published a lakes newspaper and sent it to all lake shore property owners (funded by WDNR). Keeping the county residents informed of all lake-related issues is a great assistance to the county. Another achievement of BCLF is in their ability to produce political will in the state's legislative body, and to lobby for policy to safeguard lake resources. Their efforts are greatly appreciated by the county and are commendable indeed.

Appendix E lists the lake groups with regular interactions with the AIS Project. There are more lake groups in the county, but for various reasons, the relationship between them and the county project is weak. Future efforts by the Coordinator will hope to bring all county lake groups in regular contact with the county project.

Management & Control

Eurasian Water-milfoil

Management of the EWM populations has been locally-driven. For Sandbar and Tomahawk Lakes, addressing the EWM populations has been through a citizen-initiated Town of Barnes EWM Committee. Because of the success of the first community project (WDNR Grant # AEPP-002-05) and the continued efforts and cooperation between the property owners, the town, and the state, a research project between the town, the US Army Corps of Engineers, and the WDNR (#ACEI-033-08) is in progress in these two lakes. The EWM is under active management in these two lakes.

Eurasian water-milfoil control in the Pike Chain of Lakes initiated with a Bayfield County sponsored WDNR Early Detection Rapid Response Grant (#AIRR-009-05). After this activity, the Iron River Area Lake Association (IRALA) took over, paying for chemical treatment and initiating a monitoring and hand-pulling effort. Limited expansion of existing Eurasian water-milfoil beds and the limited transfer of new plants within the Pike Chain of Lakes is the direct result of IRALA efforts. Since the discovery of EWM in the chain, a 1,100 acre body of water, the acreage of EWM has been limited to +/- 30 acres. This truly is phenomenal and a testament to the tremendous local efforts. Recently, IRALA was awarded a Controlling Established Infestations Grant (# ACEI-061-09) and is continuing their active control and management of EWM in the chain.

Along the Lake Superior shoreline, persistent populations of EWM exist in the Washburn Marina and Thompsons West End Park. Biomass of EWM, however, seems to fluctuate from year to year. In Kreher Park, Ashland, EWM exists within the landing area. The Coordinator is working with management of these areas to look for solutions to manage these persistent populations. To the best of knowledge, no other marinas along Lake Superior have persistent EWM populations.



Al Bochler & Jane Swenson of Iron River Area Lakes Association pulling EWM.

(Rick Olivo, The Daily Press)

Purple Loosestrife

Purple loosestrife (PL) is prevalent in the wetland areas of the Fish Creek Slough and the Bayfield Peninsula. For the past decade, GLIFWC has had active management over these areas by both chemical and biological control. Individuals from Long Lake and the Pike Chain actively survey, monitor and treat, sometimes with the assistance of GLIFWC, the patches of PL around their lakes. Individual *Galerucella sp.* beetles have been collected from large population centers in the northern part of the county and have been transferred around the county. In the southern part of the county, beetle populations were raised by the Eau Claire Lakes Conservation Club in the past and released in the PL areas around the Eau Claire Chain of Lakes. Barnes area property owners continue to be vigilant. USDA Forest Service surveys their lakes/lands biannually and if a population is found (Twin Lakes near Lake Namakagon, '08), will treat it quickly. Red Cliff Band, Natural Resources Department also regularly treats PL in their wetlands. The county will continue to work with GLIFWC in the future in controlling PL in the Bayfield Peninsula and Fish Creek Slough. It may be necessary to initiate a few beetle raising projects to accommodate an increase in PL in Fish Creek Slough.

Other species

To the best of current knowledge, the few other species documented within the county's inland lakes, like Rusty Crayfish, Curly-leaf pondweed, and Rainbow Smelt, have not been transferred to other lakes. Certainly, more surveys for these species need to be completed, but with the present available resources, what is occurring in the field is working. Hopefully in the future, a more complete and accurate picture of AIS in the county's water resources can be documented. Table 3 summarizes the water bodies where AIS are known in the county, Figures 2 and 3 note present locations of AIS on maps.

Table 3. Water bodies and wetland areas with major AIS, 2009

AIS	TOWN	LAKE / AREA
	Barnes	Sand Bar & Tomahawk Lakes
Eurasian Water-milfoil	Iron River	Buskey Bay, Eagle, Hart ,Millicent, & Twin Bear Lakes
	Washburn, City of	Washburn Harbor, Chequamegon Bay
Curly-leaf Pondweed	Iron River	Hart Lake
	Bayfield, Bayview, Russell	Bayfield Peninsula Southeast shoreline
Purple Loosestrife	Iron River, Cable	Millicent & Pike Lakes, Cable Lake
	Namakagon	Twin Lakes
Banded Mystery Snail	Barnes, Iron River	Millicent Lake, Middle Eau Claire Lake
Chinese Mystery Snail	Barnes, Delta, & Drummond	Delta, Diamond, Eagle, Upper Eau Claire Lakes, & Lake Owen
December Constitute	Barnes	Eau Clair Lakes (Upper, Middle, Lower)
Rusty Crayfish	Delta /Iron River	Ruth & Pike Lakes, Pike Chain of Lakes
Fish Species		
Alewife		Bayfield Peninsula Northwest, off shoreline, trawl data
Eurasian Ruffe	Bell, Clover, Port Wing, Russell	Numerous locations on the N and NE shoreline of Bayfield Peninsula, Lake Superior
Rainbow Smelt	Drummond, Grand View	Diamond &Cisco Lakes
White Perch		Bayfield Peninsula Northwest, off shoreline, trawl data
3-Spine Stickleback	Port Wing	Mouth of Flag River at Port Wing, Mouth of Iron River west of Port Wing
Freshwater Jellyfish	Drummond, Iron River	Pigeon & Spider Lakes
•		

Figure 2. Known Plant AIS populations across the county.

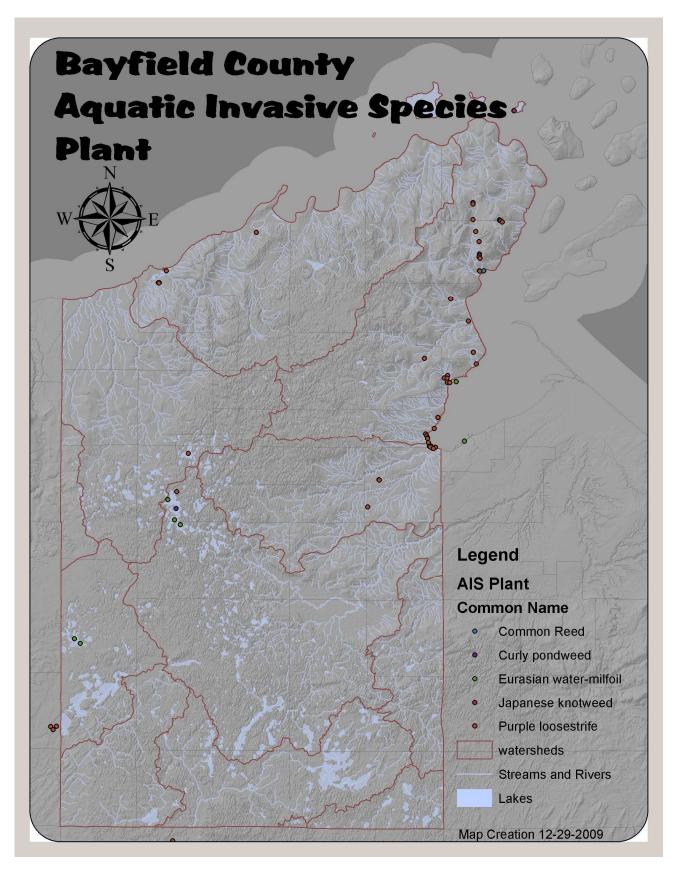
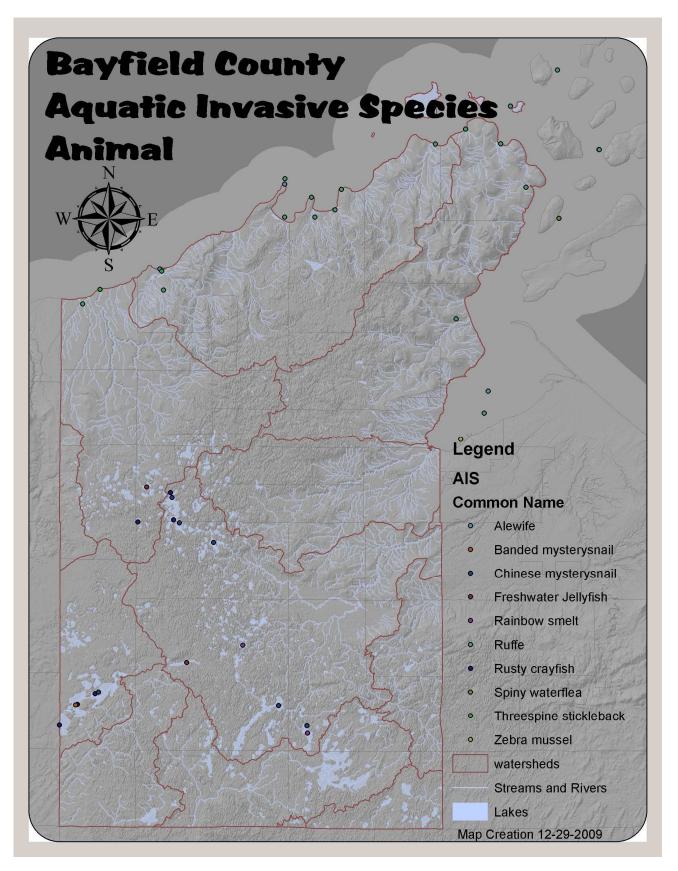


Figure 3. Known Animal AIS populations across the county.



AIS Monitoring

For the AIS Project to continue to be successful, more citizens need to get involved with consistent longterm AIS monitoring. An AIS Monitoring CLMN Workshop was given at least once a year since 2007 in the county, twice within the Northwest Wisconsin Lakes Conference. At least 30 individuals have gone through a UWEX-sanctioned CLMN AIS Monitoring workshop since this project started. At least 20 lakes are represented by trained individuals. Fifteen individuals/lakes are noted in the SWIMS database, but little data is entered. Casual lakeside plant identification workshops were held in 2007 and 2008, where 8 other individuals were trained, but again, little AIS monitoring data are being recorded. Although the Coordinator has solicited lake groups to host "mini-workshops" so that more lake shore property owners can have the confidence to monitor, few have accepted. The Town of Barnes EWM Committee has hosted an Appreciation Luncheon in May for the past two years where attendees were educated on plant identification. Iron River Area Lakes Association, Lake Owen Association, and Namakagon Lake Association members also got plant identification instruction at their annual meetings. How this materializes to casual or more rigorous monitoring along their shorelines is still unknown. The lack of a more structured coordinated effort for AIS monitoring continues to be a large challenge. Since this activity is advantageous to more than one goal of the strategic plan, the Coordinator will expend more energy in the future to increase AIS monitoring.

SWAT

Shoreline Watch Aquatic Team, or Shoreline Weed Attack Team, as the SWAT acronym can be identified is alive and well in the Pike Chain of Lakes, and mostly due to the coordination and encouragement skills of one volunteer consultant—Jane Swenson. She works closely with the Coordinator to accomplish the objective of the strategic plan, and gets on-the-ground success in her home territory. This SWAT community has not caught on in other lake areas and maybe seen as 'competition' with the CLMN AIS monitoring program. They accomplish the same, with the latter requiring state reporting.

Adopt-a-Landing

This initiative was mentioned in the grant proposal. The concept is admirable, to watch and "clean" a landing like groups do a mile of roadside, however, the practice is happening without working under an organized program. Namakagon Lake Association and Lake Owen Association pay lake consultants yearly to survey around the landings. Because of EWM within the lakes, and CBCW programs, the most prominent lakes of the county and their landings are being watched and cleaned. USDA Forest Service via their Recreation Ranger also monitors its landings. This particular initiative may work better for smaller lakes and lakes in public lands that are easily forgotten. This redirection will be considered in the future.

Governor's Visit 2008 -Listening to the AIS Project Coordinator (Pamela Toshner, WDNR)



Assessment of Grant Application Goals and Objectives

Goal A. Create and enhance a network to support and streamline AIS prevention and control efforts in coastal and inland watersheds.

Objective A1. Create a network of persons throughout the county that are willing to assist the county in coordinating and implementing AIS prevention and control efforts (lake groups, citizens, agencies, town officials.)

Objective A2. Create a strategic plan to monitor and prevent new AIS infestations and minimize the spread of existing infestations at a county-wide level.

Objective A3. Link citizen efforts, agency support, and the AIS strategic plan to other local & regional plans.

COMPLETED

Goal B. Document invasive species locations and zones of influence over time.

Objective B1. Track movement of aquatic invasive species county-wide in cooperation with agencies and Tribal partners.

COMPLETED

Goal C. Prevent further spread of AIS through education. Target audiences include: lake users, landowners, local businesses, conservation and recreational groups, and other interested parties.

Objective C1. Conduct workshops to train volunteers about threats, identification, and monitoring methods for control and prevention of invasive species.

Objective C2. Provide current information to citizens, sportsmen, and non-residential landowners on status of AIS.

COMPLETED

Goal D. Obtain and manage funding to provide support for evolving water quality issues

Objective D1. Administer AIS grant

Objective D2. Seek support to for an overall county-wide water quality management plan to maintain long-term water quality and economic viability

COMPLETED & IN PROGRESS

Reconciliation of Budgeted vs. Actual Match:

Unfortunately, the lead proposal writer and idea person for this project was no longer with ABDI-LCD when a Project Coordinator was hired. This left a knowledge gap for some of the intentions of the proposed match. Although some of the activities listed estimated outcomes, and some information could be surmised from this, there remained many questions about how the match was exactly calculated. In the end, match came from all over the county from numerous entities—as the strategic plan outlines it to be. In the geographical area (the Pike Chain of Lakes) where most of the monitoring and EWM work occurred for this grant, Jane Swenson of Phantom Consulting assisted the county in tracking and recording match. With a project this broad, and not having a major match donor, tracking and accumulating match can be problematic. It also takes much time and effort and sometimes was regarded as a low priority by the Coordinator as other tasks needed attention. Therefore, match for many activities assisted by volunteers was not recorded. Like the posting of the county ordinance signs, the AIS monitoring that does go on, the time of many other professionals that the Coordinator consulted, additional time the NCWMA contributed to the county project—these donations were not tracked nor recorded. What needs to be recognized is that even though enough match was recorded for the sake of the grant agreement—there was so much more on the ground.

Total Project: \$150,000 Match needs: 50% or \$75,000

As the grant budget was proposed:

Match Source	Reason	%	Value	Actual
County:	Suspect it was the Shoreline Mitigation		ć22.700	ćo
contract specialist & – CC	Specialist, his work and associated fees	30.3	\$22,700	\$0
CC	Grant Administration	16.0	\$12,200	\$0
Divers, pontoons, etc.	Lake Monitoring support	15.9	\$11,900	\$9,984
Volunteer watercraft trainers	Professional assistance @ \$10/hr	8.0	\$6,000	\$0
Training coordinator assistant	Professional assistance @ \$15/hr	6.4	\$4,800	\$7,821
County	GIS/website assistance		\$3,000	\$0
County	Office space & phone		\$3,000	\$5,726
ABDI-LCD Educator	Education Support		\$2,000	\$78
Volunteers	Lake group participation at presentations		\$1,920	\$208
County	Northland College summer intern		\$1,800	\$0
Northland College	Northland College summer intern		\$1,800	\$0
Staff/baard mambars	Committee meetings, meetings w/towns,		\$1,680	\$866
Staff/board members	w/ lake groups			*\$5,266
СС	Grant Writing Assistance		\$1,000	\$0
Volunteers/trainer	Volunteer travel time		\$1,000	\$866
T-shirts	Educational/promotional materials		\$200	
	TOTAL		\$75,000	\$30,815

CC = County Conservationist

Explanations of difference between budgeted and actual:

\$22,700 – Shoreline Mitigation Specialists left position and position was not filled.

\$12,200 --County Conservationist left position, filled after 8 months, new CC had his hands full with other departmental issues and the separation of ABDI-LCD into four separate county departments. \$11,900 – This estimate most-likely was projected for work on the Pike Chain of Lakes. Folks around the chain, primarily through the Iron River Area Lakes Association, put extensive effort into the protection of their lakes. The budgeted number was probably realistic, but it is difficult to capture all the activity going on there. Jane Swenson was the point person that kept match records—THANK YOU Jane! Just a note, all the lake associations in the county put in great efforts for their lake(s)—and many with their own grant-assisted funding.

\$6,000 -- One workshop (what the trainer was going to help with) requires maybe 5 hours of time, or \$50 match. For \$6,000, that would be at least 120 trainings across the county or 12 trainers for the 10 proposed workshops. This is one area where the match intention is clearly an unknown.

\$4,800 -- As with above, this professional assistance was not clearly defined in the grant notes, but it was probably for Jane Swenson in her training capacity. Ms. Swenson worked like an assistant to the Coordinator, and all of her own time. Her match alone with both hours and mileage covers 10.4% of match—this gift of her time is unparalleled!

\$3,000 – GIS/Website assistance – No GIS was used in this project as survey information comes largely from the GLIFWC database. The website and assistance from the IT/IS Department has occurred, but is difficult to track. Plus, since IT was planning on changing the web design, there was a general hold on any work on the website.

\$2,000 -- Education support from ABDI educator was minimal due to the late start of the project (Sept not April), and because of the break-up of ABDI-LCD. This was unforeseen, but also, probably a bit of an overestimate since the AIS Coordinator would do a lot of the educating.

^{* =} County AIS Committee members in-kind hours.

\$1,920 -- Although the AIS Coor solicited lake groups to have presentations, it seemed the time for AIS education had passed and they were on to the next thing. The AIS Coor did attend many lake association meetings, and often talked some minutes about AIS issues, but this time was not tracked, more so because those lake associations had their own grants and were using this meeting time for their own match. The amount listed was for time at lake meetings, for associations that did not have grants. \$1,800 -- (times 2) - the AIS Coor could not find anyone in Northland College who was aware of this internship. Additionally, NC was reworking how they did internships—and were not prepared to host a student under this project—nor was it put in the county budget. An intern was employed, for the Pike Chain of Lakes, but it was paid for completely out of this grant—no match.

\$1,680 -- county staff going to meetings – again—not sure what the original grant intended as this would be a coordinator duty, however, match was gleaned from the County Board of Supervisors and from the Land Conservation Committee who listened to presentations/reports from the AIS Coordinator during their meetings asking many questions during the presentations and adding input into the project. \$1,000 -- grant writing was assisted by Jane Swenson and is included as part of her match.

\$1,000 -- volunteer travel time was John Kudlas in his non-AIS Committee endeavors. Jane Swenson also had about this amount; it is noted under her total match. This match is very difficult to track in general from any volunteers. With John and Jane, who work closely with the AIS Coordinator, it was easier.

\$200 -- A creative idea but without clear direction in proposal and therefore did not get completed.

Where the remaining \$44,185 match came from:

Match Source	Reason	Value
Landowners	Working with Co Conservationist with shoreline mitigation, private launches & shoreline restoration	\$7,280
County infrastructure support	If take into account most of the infrastructure needs to support an employee according to DGMaximus calculations	\$4,144
Volunteers – IRALA	EWM & PL work – pulling & monitoring	\$4,131
Federal Agencies	Part of the county AIS project was to network and coordinate with other partners	\$3,744
County Conservationist	Butch's individual consultation w/ landowners	\$3,600
County support	Tracked amt of admin, clerks, and sheriffs	\$3,436
County support	AIS Committee advisors, Tim K & Mary M.	\$3,075
Long Lake POA	Watercraft inspections, monitoring	\$2,700
Lake Owen Assn., Inc.	Watercraft inspections, monitoring, consultants	\$2,219
NCWMA	This group was specifically noted in the grant	\$1,636
County Conservationist	Butch's assistance to AIS Coordinator	\$1,552
AIS Project Coordinator	Difference of mileage reimbursed at non-IRS rate	\$1,471
Volunteers	Workshop Attendees	\$1,310
Washburn Marina	A grant-developed partner	\$1,227
LWCD & ABDI-LCD support	Admin Asst.; hiring time of ABDI, summer 09 intern	\$1040
Lake group volunteers	Assisting AIS Coor, governor's visit, JK & JS activities	\$960
LWCD	Photocopy & lamination estimated costs	\$790
LWCD	Conference fees, postage, supplies	\$576
	TOTAL	\$45,467

Summary of Match – Personal Time & Mileage

Department	Name	\$ time	\$ miles
ABDI Staff	Tom F, MaryJo, RK	\$603.00	
AIS Committee	Jim Crandall	\$575.36	
	Dee Kittleson	\$266.72	
	John Kudlas	\$1340.00	\$865.84
	Nan Olson	\$1,798.26	
	Matthew Symbal	\$538.74	\$88.74
	Tom Thornton	\$271.20	
	Cy Zaeske	\$387.36	
Administration	Abeles-Allison, Mark	\$350.06	
	Kavajecz, Kris	\$43.40	
Board of Supervisors		\$555.20	
Clerk's Office	Dawn Bellile	\$637.50	
	Scott Fibert	\$237.45	
	Gail Reha	\$112.00	
	Gail Soulier	\$544.00	
Coastal Mgmt Grant	NCWMA	\$849.00	
Lake Owen Association, Inc.	_	\$2,218.50	
Law Enforcement	Sheriff Follis	\$259.00	
	Chief Deputy Susienka	\$619.75	\$40.70
	Officers & Sheriff Com	\$592.25	7
Lake Groups listening to SS	LLPOA & Marengo Lake	\$208.00	
LCC – Land Conservation Cor	-	\$311.10	
LWCD	Butch Lobermeier	\$1522.00	
LWCD - landowners working		\$10,880.00	
LWCD	Jen Schierman	\$409.64	
LWCD	Amanda Seeley	\$85.80	
Long Lake Property Owners A	·	\$2,700.00	
	erative Weed Management Area)	\$446.50	
Non IRS reimbursed miles	S Strzalkowska	,	\$1,470.72
Phantom Consulting Services		\$6,997.50	823.66
SWAT - Pike Chain of Lakes -		\$3,979.20	
SWAT - Diving Team - Pike Ch		\$4,338.00	
Tourism & Recreation	Mary Motiff	\$1,343.38	
USDA Forest Service -Washb		\$3,432.00	
USFWS - Fisheries - Gary Czy		\$312.15	
UWEX - Com Res Specialist	Tim Kane	\$1,731.34	
Volunteer	Al Bochler	\$238.00	
Volunteer	Jane Swenson	\$152.00	
Volunteer	JK, IE, JP, BA	\$808.00	
Washburn Marina	Michelle Schrider & Crew	\$1,227.29	
	1	\$340.00	
Whittlesey Cr. Field Day	various	334000	
Whittlesey Cr. Field Day Workshop Attendees	various various	\$1,309.95	

Summary of Match Equipment, Logistic Support, Miscellaneous

Item	Donator	\$
Advertisement	County	\$134.00
Computer & service	County	\$1,406.11
Conference costs	LWCD (accidental pymt—co absorbed cost)	\$352.34
Copying & lamination	LWCD	\$790.00
DG Maximus ins. eq use. trea	County	\$1,581.61
DG Maximus bldg maintenc	County	\$2,562.00
Equipment EWM pulling	IRALA - SWAT	\$694.00
Office space	County	\$3,292.86
Office Supplies	County	\$70.41
Pontoon	I Ekstrom & governor's visit	\$387.00
Pontoons, boats	IRALA - SWAT	\$3,595.00
Postage	County	\$19.17
Pulling EWM - gear donations	IRALA	\$739.00
Room Donations	Town IR & Deer Trail Lodge	\$60.00
Telephone use & service	County	\$1,026.97
Tent, Table & Chairs	Battle Axe Saloon, IR	\$171.20
	ТОТ	AL \$16,881.67

Summary of Project Expenses

Item	\$ Budgeted	\$ Actual
Coordinator expense (to 31 May 09)	\$61,000	\$59,567.00
Training (conference travel & fees) – also includes		
AIS Committee members conference expenses	\$2,000	\$3248.96
Registration fees		(\$1,362.00)
Lodging		(\$1,404.28)
Meals		(\$185.68)
Mileage		(\$297.00)
Miscellaneous		(\$111.32)
Travel - In-county	\$4,500	3,502.86
Educational materials	\$2,500	\$3,854.26
Office support/supplies		(\$281.68)
Educational supplies		(\$3,195.26)
Graphics - advertisements		(\$266.00)
Plan supplies/support	\$2,000	\$670.42
Mailings	\$1,000	\$178.98
NC Intern funds	\$1,000	\$565.85
Remaining Expense to balance reimbursement		
requests – category unresolved at this time		\$458.22
Additional Expenses:		
Mileage for AIS Committee members &		\$2,888.20
volunteers		
Phone Conferencing		\$65.80
TOTAL	\$75,000.00	\$75,001.19

An unauthorized expense is committee per diem, therefore it is not in these tallies and AIS Committee time was accrued as match. However, it is an expense to the county to support a committee, and that expense totaled \$3,431.39 during the grant period.

Appendix A List of County AIS-Related Resolutions & Amendatory Ordinances

Resolutions – to 30 June 2009

Number	Title	Date
2005-019	Establishing an Exotic Aquatic Invasive Species (AIS) Ad Hoc Committee	31 May 05
2005-026	Supporting State Efforts to Address the Non-Native Aquatic Invasive Species Problem	31 May 05
2005-33	Rapid Response/Early Detection Grant County of Bayfield—Pike Chain of Lakes	31 May 05
2006-06	Aquatic Invasive Species Grant	31 Jan 06
2006-06(a)	Revised Aquatic Invasive Species Grant	02 Mar 06
2006-048	Twin Bear Lake Park Boat Inspection and Cleaning Program	31 Oct 06
2006-059	Aquatic Invasive Species Grant Education, Prevention, and Planning Project (for the county parks on Pike & Delta Chain of lakes)	19 Dec 06
2007-01	Aquatic Invasive Species Grant Protecting the Pike & Delta Chain of Lakes Through Education, Prevention and Planning (REDO of 2006-59)	30 Jan 07
2007-09	Establishing a Bayfield County Aquatic Invasive Species Committee	29 Mar 07
2007-25	To Support a County-wide Restriction on Transportation of Aquatic Invasive Species	29 Mar 07
2008-01	Aquatic Invasive Species Control Grant Protecting the Iron River/Delta Area LakesThrough Education, Prevention, Containment & Planning	29 Jan 08
2008-05	Aquatic Invasive Species Control Grant Implementation of a Public Utilized Web-based Reporting System for Aquatic Invasive Species	29 Jan 08
2008-11	Approving the Bayfield County Aquatic Invasive Species Strategic Plan	15 Apr 08
2008-13	Calling Upon the Wisconsin Department of Natural Resources to Locate Statewide AIS Coordinator in Northern Wisconsin 15 Apr 08	
2008-0-33	Aquatic Invasive Species Control Grant Bayfield County Aquatic Invasive Species Project 2009-2010	29 Jul 08
2009-01	Aquatic Invasive Species (AIS) Control Grant Protecting the Iron River and Delta Area Lakes	27 Jan 08

Resolutions in blue are for awarded WDNR AIS Control Grants
Resolutions in red are for non-funded WDNR AIS Control Grants

Amendatory Ordinances - to 30 June 2009

Number	Title	Date
2007-10	Establishing a Bayfield County Aquatic Invasive Species Committee –	29 Mar 07
	Sec.2-3-18 Aquatic Invasive Species Committee	
2007-20	Title 16 of Bayfield County Code amended to include Chapter 2: Aquatic	30 Oct 07
	Invasive Species Sec. 16-2-3 Prohibited Transport of Aquatic Invasive Species	
2009-07	Title 16 of Bayfield County Code Chapter 2: Aquatic Invasive Species amended	21 Apr 09
	to include Sec. 16-2-5 Penalties	

Appendix B List of Outreach, Networking & Workshop Activities

Date	Event/Location	Outreach Description
21 Oct	Bayfield County Lake Forum	Outreach & Networking
	(BCLF) Annual meeting	

Date	Event/Location	Outreach Description
3 Feb	Northland College Career Day	Outreach – soliciting for volunteers for AIS activities
16 Feb	BCLF Surface Water Consortium	Networking- Introducing AIS Project to potential
		partners
15 Mar	Town of Cable Meeting	Outreach & Networking
21 Mar	Meeting w/ USDA Forest Service	Networking – Discussion of signs and preventative
	Great Divide District	procedure at the Missionary Point landing on
		Namakagon Lake
29 Mar	County Board meeting	Education – need for AIS Committee & AIS issues
31 Mar	Bay Area Farm & Garden Show	Education – focus on water gardens & AIS
17 Apr	Iron River Chamber After Five	Networking – casual AIS outreach to attendees
4 May	Barnes EWM Committee luncheon	CBCW Workshop – assisting with local workshop
18 May	LCC Quarterly Meeting	Education – need for transport ordinance and
		discussion of phosphorous ban
26 May	Mr. T's Bait Shop, Iron River	Outreach & Boat Washing Demo
29 May	County Board meeting	Education - transportation restrictions to prevent AIS &
		phosphorous effects on lakes
2 Jun	Kid's Fishing Day – NGLVC	Outreach - to children and adults
9 Jun	Long Lake POA meeting	Outreach, Networking, Education–plant identification
		ed.
12 Jun	CBCW Workshop – Iron River	Training – watercraft inspection staff & public
14 Jun	BCLF VHS Workshop	Education – supporting role
21 Jun	NW Lakes Conference, Cable	Training – assisted in CLMN & CBCW workshops
	Workshops	Outreach – display & communications
7 Jul	Lake Owen Assn Annual Meeting	Outreach & Networking
7 Jul	Cable Lakes Assn Annual Meeting	Outreach & Networking
11 Jul	No. Wisconsin Rod & Gun Club	Education – slide presentation
28 Jul	Twin Bear County Park Workshop	Education – plant identification
29 Jul	Iron River Blueberry Festival	Outreach – Display & communications
4 Aug	Kid's Fishing Day, Kreher Park	Outreach -Lake Superior landing
14 Aug	Workshop – Lake Owen	Training – Water Quality Sechi Disk
18 Aug	Namakagon Lake Assn Annual Mtg	Outreach & Networking
23 Aug	Bayfield County Fair	Outreach- passive display w/ occasional presence
29 Sep	Delta Area Lakes Assn Annual Mtg	Outreach & Networking
29 Sep	Cable Fall Fest	Outreach in collaboration with NLA
5 Oct	Musky Tournament, Iron River	Education – tournament participants

Date	Event/Location	Outreach Description
15 Feb	BCLF Surface Water Consortium	Networking & Information Exchange
27 Feb	NGLVC - Strategic plan public info	Outreach – Informational re AIS Strategic plan
28 Feb	Cable Community Center	Outreach – Informational re AIS Strategic plan
5 Apr	Bay Area Farm & Garden Show	Outreach – NCWMA display also
7 Jun	Namakagon Town Hall	Education & information – Nam Lake Assn Board
11 Jun	2nd Landing - Ashland	Networking – powerwash station information
12 Jun	Aquaculture Field Day, Red Cliff	Outreach – AIS in relation to aquaculture
13 Jun	St Croix River Fest	Presentation – county AIS project
19 Jun	NW Lakes Conference, Cable	Outreach – Display and communications
22 Jun	Marengo Lake Working Group	Education – benefit of assn for AIS prevention
25 Jun	Long Lake POA mtg	Education & Training – grant administration
27 Jun	Knotweed Knockout – Bayfield	Outreach & Networking
28 Jun	IRALA Annual Meeting	Presentation – grants & co support; plant id
5 Jul	Cable Lakes Assn Annual mtg	Slide presentation – county AIS project & AIS updates
12 Jul	Lake Owen Assn Annual mtg	Short presentation –AIS updates; plant id
12 Aug	Governor's Tour of Pike Chain	Education – county and lake assn efforts
16 Aug	Ashland Farmers Market	Outreach & Education
20 Aug	Lake Planning Workshop,	Networking & Information Exchange, Northern Envir.
1 Aug	Bayfield County Fair	Outreach – staffed outside booth
22 Aug	Whittlesey Creek Field Day	Networking & Education - asst w/ Town of Barnes AIS
		presentation
13 Sep	Long Lake POA monthly mtg	Education & Information
14 Oct	CESA #12 – mtg w/ Corriculum	Outreach & Networking
	Coordinator	

2009 to 30 Jun

Date	Event/Location	Outreach Description
6 Jan	Grant Writing Workshop, Iron Riv	Training & Education
27 Jan	Bayfield County Board	Education - slide presentation of AIS Project
12 Feb	Career & Volunteer Fair, NC	Outreach & Education solicitation for AIS activities
13 Feb	BCLF Surface Water Consortium	Networking & Information exchange
10 Mar	Working Lands Initiative	Outreach - AIS& NCWMA displays & communication
14 Apr	Sheriff's Committee	Education & Information – transport ord. penalty fees
1 May	Barnes EWM Com Luncheon	Training – AIS updates & plant id
7 May	CBCW Workshop, Cable	Training – cohosted refresher/new CBCW workshop
3 Jun	CBCW Workshop, Sig Olson El	Training –new CBCW volunteers
6 Jun	Kid's Fishing Day	Outreach & Education – hands-on activity
12 Jun	Knotweed Knockout – Bayfield	Networking & Information Exchange
14 Jun	Chequamegon Birding Festival	Outreach – passive – displays & handouts (also NCWMA)
19 Jun	NW Lakes Conference, Cable	Outreach – Display and communications (also NCWMA)
25 Jun	CLMN AIS Monitoring Workshop	Training – AIS Monitoring Workshop at Iron River
30 Jun	AIS Committee Mtg & Fieldtrip	Education & Information exchange

Appendix C

Summary of AIS-Related Grants

WDNR AIS Control Grant Awarded to Bayfield County Entities

		Year of		
Sponsor Organization	Title – Emphsis	Award	State Award	Grant Name
Lake Namakagon Association, Inc.	Namakagon Lake Eurasian Milfoil Inspection Project	2002	\$ 783.30	SPL-025-02
Lake Namakagon Association, Inc.	Eurasian Water Milfoil Watch & Education Project	2003	\$ 2,212.80	SPL-058-03
ABDI-LCD	Aquatic Invasive Species Educatio Conference	2004	\$ 3,000.00	ASPL-010-04
Town of Namakagon	Aquatic Invasive Species Prevention & I&E Project	2004	\$ 1,672.50	ASPL-009-04
Bayfield County	Management of Eurasian Water-Milfoil - Twin Bear Lake	2005	\$ 10,000.00	AIRR-009005
Town of Barnes	Barnes Eurasian Water-Milfoil 2005 Project	2005	\$ 22,040.00	AEPP-002-05
Town of Cable	Cable, Perry, Tahkodah Lakes AIS Inspection & Education	2005	\$ 7,500.00	AEPP-015-06
Town of Delta	Taking Back Our Lakes: Pike Chain & Delta Chain of Lakes	2005	\$ 2,075.00	AEPP-004-05
Town of Iron River	Long Lake AIS Monitoring & Education	2005	\$ 2,289.50	AEPP-016-06
Town of Namakagon	Eurasian Water-Milfoil Watch & Education	2005	\$ 3,380.00	AEPP-012-05
Bayfield County	AIS County Coordinator/ AIS Project	2006	\$ 75,000.00	AEPP-022-06
Town of Namakagon	Eurasian Water-Milfoil Prevention, Detection & Education	2006	\$ 3,930.00	AEPP-035-06
Bayfield County	Protecting the Pike & Delta Chain of Lakes thru AIS Ed, Prev. & Pl	2007	\$ 5,000.00	AEPP-074-07
Lake Owen Association	Lake Owen AIS Prevention, Education and Planning	2007	\$ 11,375.00	AEPP-102-08
Long Lake Property Owners Assn.	Long Lake Watercraft Inspection Program	2007	\$ 2,500.00	AEPP-104-08
Town of Barnes	Eau Claire Lakes-Barnes Area AIS Ed., Prev., & Planning Project	2007	\$ 20,000.00	AEPP-064-07
Town of Barnes	Tomahawk & Sandbar Lakes Research Project	2007	\$ 75,000.00	ACEI-033-08
Town of Cable	Town of Cable AIS Program	2007	\$ 7,500.00	AEPP-101-08
Town of Namakagon	Lake Namakagon AIS Ed, Prevention & Investigation Project	2007	\$ 5,566.80	AEPP-070-07
Bayfield County	BC Pike & Delta Chain of Lakes	2008	\$ 13,968.00	AEPP-124-08
Bayfield County	Bayfield Co AIS Project 2009-2010	2008	\$ 82,912.00	AEPP-173-09
Lake Namakagon Association, Inc.	Namakagon Lake AIS Education Prevention and Inspection	2008	\$ 7,455.00	AEPP-117-08
Town of Cable	AIS Control in Town of Cable	2008	\$ 12,000.00	AEPP-179-09
Iron River Area Lakes Association	Pike Chain AIS Control & Prevention Project 2009-2013	2009	\$ 161,225.25	ACEI-061-09
TOTAL			\$538,385.15	

WDNR Lake Management Grants Awarded to Bayfield County Entities

		Year of		Grant
Sponsor Organization	Title – Emphsis	Award	State Award	Name
Namakagon Lake Association, Inc.	Lake Namakagon Water Quality Monitoring Survey	1997	\$ 9,402.93	LPL-507
Namakagon Lake Association, Inc.	Lake Namakagon User Survey - Information & Education	1997	\$ 8,478.75	LPL-520
Bayfield County	Bayfield County Zoning Ordinance Revision	1999	\$ 9,999.75	LPL-615
Town of Cable	Cable, Perry, Tahkodah Lakes AIS Inspection & Education	1999	\$ 10,000.00	LPL-614
Bayfield County	Bayfield County UW-Extension Lake Education	2001	\$ 3,000.00	SPL-012-02
	Town of Delta Comprehensive Plan - Phase 1: Inventory & Analysis of			
Town of Delta	Existing Conditions	2002	\$ 10,000.00	LPL-856-03
Town of Delta	Town of Delta Comprehensive Plan - Phase 2: Recommendations	2002	\$ 10,000.00	LPL-858-03
Cable Lake Association, Inc.	Cable Lake Study	2003	\$ 10,000.00	LPL-897-04
Lake Owen Association	Lake Owen Water Quality Study	2004	\$ 10,000.00	LPL-964-04
Namakagon Lake Association, Inc.	Educatio Outreach Program	2004	\$ 2,062.50	SPL-075-04
Town of Barnes	Eau Claire Lakes- Management Plan - Upper Eau Clair Lake	2004	\$ 8,749.50	LPL-950-04
Town of Barnes	Eau Claire Lakes- Management Plan - Middle Eau Clair Lake	2004	\$ 8,749.50	LPL-949-04
Town of Barnes	Eau Claire Lakes- Management Plan - Lower Eau Clair Lake	2004	\$ 8,749.50	LPL-948-04
Namakagon Lake Association, Inc.	Education Outreach	2005	\$ 3,000.00	SPL-094-05
Bayfield County Lakes Forum	BCLF Communications Outreach Program	2007	\$ 3,000.00	SPL-150-08
Iron River Area Lakes Association	Pike Chain of Lakes - Management Planning Project - Buskey Bay #2	2007	\$ 7,430.27	LPL-1167-07
Iron River Area Lakes Association	Pike Chain of Lakes - Management Planning Project - Lake Millicent #3	2007	\$ 6,672.89	LPL-1168-07
Iron River Area Lakes Association	Pike Chain of Lakes - Management Planning Project - Hart Lake #4	2007	\$ 6,783.89	LPL-1169-07
Iron River Area Lakes Association	Pike Chain of Lakes - Management Planning Project - Flynn Lake #7	2007	\$ 6,725.64	LPL-1170-07
Iron River Area Lakes Association	Pike Chain of Lakes - Management Planning Project - Twin Bear #5	2007	\$ 6,873.38	LPL-1171-07
Iron River Area Lakes Association	Pike Chain of Lakes - Management Planning Project - Eagle Lake #6	2007	\$ 9,465.97	LPL-1172-07
Iron River Area Lakes Association	Pike Chain of Lakes - Stakeholder Participation of Planning Process #1	2007	\$ 5,398.50	LPL-1177-07
Bayfield County	Controlling Run-off & Erosion Guidebook	2008	\$ 3,000.00	SPL-164-08
Namakagon Lake Association, Inc.	Phase 1: Aquatic Plant Survey	2008	\$ 10,000.00	LPL-1234-08
Namakagon Lake Association, Inc.	Phase 2: APM Plan & Sanitary Survey	2008	\$ 7,467.75	LPL-1235-08
POA, Barnes-Eau Claire Lakes Area	D.O. Monitoring in the Barnes-Eau Claire Lakes	2008	\$ 1,255.50	SPL-168-08
Bayfield County Lakes Forum	BCLF Communications Outreach Program	2009	\$ 3,000.00	SPL-179-09
TOTAL			\$189,266.22	

WDNR Lake Protection Grants Awarded to Bayfield County Entities

Sponsor Organization	Title – Emphasis	Year of	State Award	Grant Name
		Award		
Bayfield County	Bony Lake Restoration	2008	\$100,000	LPT-316-08
Bayfield County	Pike Chain/Twin Bear County Park Shoreline Restoration		\$100,000	LPT-343-10
	TOTAL		\$200,000	

Other Grants for County and County-related Projects

Sponsor	Grantor	Title – Emphasis	Year of	Award	Grant Name
Organization			Award		
Bayfield County	WI Coastal Management Program	NCWMA Invasive Species Education	2008	\$7,040	AD079056-008.20
Bayfield County	National Fish & Wildlife Foundation	NCWMA Invasive Species Education	2009	\$35,000	2009-0059-026
Bayfield County	WI Coastal Management Program	County AIS Education	2009	7,720	AD099248-010.19
		TOTAL		\$49,760	

Total Grants:

AIS \$538,385.15 Lake Planning \$189,266.22 Lake Protection \$200,000.00 Others \$49,760.00

\$977,411.37

Appendix D
Yearly CBCW Data from Surface Water Integrated Monitoring System (SWIMS)

2005 CBCW results.

Landing Name	#Boats	#Contacts	# Hours
Garden Lake	49	102	66
George Lake	3	6	0
Lake Delta	35	80	37
Lake Superior - Bayfield City Boat Launch	120	186	59
Lake Superior - Herbster Landing	2	5	1.5
Lake Superior - Little Sand Bay Access	83	147	39.5
Lake Superior - Squaw Bay Access- Park Rd)	38	59	26
Lake Superior-Port Wing Harbor - 2nd Slip W	6	17	4.5
Lower Eau Claire Lake Access - Douglas Co Park	109	266	85.5
Middle Eau Claire Lake Access - Boat Landing Rd.	467	873	139
Namakagon Lake - Hwy D access	165	264	161
Robinson Lake Access - Robinson Lake Rd.	12	24	18
Tomahawk Lake Access End Of Park Rd	1	2	4
Twin Bear Lake - Twin Bear County Park	482	979	272.5
Upper Eau Claire Lake Access - Island Rd.	463	932	176.5
TOTALS	2,035 boats	3,942 contacts	1,090 hours

2006 CBCW results. Blanks mean no data in SWIMS, but not necessarily no coverage.

Landing Name	#Boats	#Contacts	# Hours
Cable Lake	228	458	281
Garden Lake			
George Lake			
Island Lake	1	4	0.5
Lake Delta	10	12	21
Lake Superior - Bayfield City Boat Launch	10	20	7
Lake Superior - Herbster Landing			
Lake Superior - Little Sand Bay Access	40	106	59.5
Lake Superior - Squaw Bay Access- Park Rd	14	21	20.5
Lake Superior-Port Wing Harbor - 2nd Slip W	12	21	17.5
Long Lake – Island Blvd.	328	817	484.5
Lower Eau Claire Lake Access - Douglas Co Park	Data	went missing on S	WIMS
Middle Eau Claire Lake Access - Boat Landing Rd.	144	301	68
Namakagon Lake - Hwy D access			
Perry Lake	5	8	24
Robinson Lake Access - Robinson Lake Rd.	5	5	3
Tomahawk Lake Access - End Of Park Rd	2	7	24
Twin Bear Lake - Twin Bear County Park	440	1024	159
Upper Eau Claire Lake Access - Island Rd.	51	51	21
TOTALS	1,290 boats	2,850 contacts	1,190.5 hours

2007 CBCW results. Blanks mean no data in SWIMS, but not necessarily no coverage.

Landing Name	#Boats	#Contacts	# Hours
Cable Lake	368	830	356.25
*Garden Lake			
George Lake	1	2	0.5
Island Lake	4	8	13.5
Lake Delta	150	374	138.5
Lake Owen	197	370	120
Lake Superior – Bark Bay Point	1	3	2
Lake Superior - Bayfield City Boat Launch	108	260	59
Lake Superior - Herbster Landing			
Lake Superior - Little Sand Bay Access	0	1	0.5
Lake Superior - Squaw Bay Access- Park Rd			
Lake Superior-Port Wing Harbor - 2nd Slip W	2	4	2
Lake Superior-Red Cliff – Buffalo Bay CG	1	5	1.5
Lake Superior-Washburn Marina	2	7	2
Long Lake – Island Blvd.	151	341	289
Lower Eau Claire Lake Access – Doug. Co. Park	844	2101	434.5
Middle Eau Claire Lake Access - Boat Landing Rd.	1022	2276	493
Namakagon Lake - Hwy D access	18	44	21
*Namakagon Lake – Funny's Bay Rd.	2	4	6
Namakagon Lake – Missionary Point CG	5	12	3
Perry Lake			
Pickerel Lake	3	8	1
Robinson Lake Access - Robinson Lake Rd.	16	38	21
Tomahawk Lake Access - End Of Park Rd	26	60	144.5
Twin Bear Lake - Twin Bear County Park	1205	2945	456.5
Upper Eau Claire Lake Access - Island Rd.	1229	2174	497
TOTALS	5,355 boats	11,867 contacts	3,062 hours

^{* 24/7} video monitoring set up.

2008 CBCW results. Blanks mean no data in SWIMS, not necessarily no coverage.

Landing Name	#Boats	#Contacts	# Hours
Anadota Lake	1	3	0.5
Buskey Bay	2	6	1
Cable Lake	352	677	401
Garden Lake	1	2	0.5
George Lake	1	2	0.5
Island Lake			
Lake Delta	185	329	235
Lake Owen	1270	2584	1090
Lake Owen – FS Campground	2	4	1.5
Lake Superior – Bark Bay Point	5	14	3
Lake Superior - Bayfield City Boat Launch	211	504	84.5
Lake Superior – Bell Marina - Cornucopia	1	5	1
Lake Superior - Herbster Landing			
Lake Superior - Little Sand Bay Access	12	30	2.5
Lake Superior - Squaw Bay Access- Park Rd			
Lake Superior-Port Wing Harbor - 2nd Slip W	51	124	33.5
Lake Superior-Red Cliff – Buffalo Bay CG	15	41	7.5
Lake Superior-Washburn Marina	63	138	39
Long Lake – Island Blvd.	210	568	436
Lower Eau Claire Lake Access – Doug. Co. Park	490	824	2108
Middle Eau Claire Lake Access - Boat Landing Rd.	1341	2961	577.7
Namakagon Lake - Hwy D access			
Namakagon Lake – Funny's Bay Rd.	115	246	140.5
Namakagon Lake – Lake Ridge Rd.	11	34	6.5
Namakagon Lake – Missionary Point CG	5	9	4
Perch Lake	1	1	1
Perry Lake	46	112	206
Pickerel Lake	3	8	1
Pigeon Lake	1	2	0.5
Robinson Lake Access - Robinson Lake Rd.	14	37	10.5
Tahkodah Lake	42	42	98
Tomahawk Lake Access - End Of Park Rd	10	30	59.5
Twin Bear Lake - Twin Bear County Park	1172	3013	430
Upper Eau Claire Lake Access - Island Rd.	1167	2605	554
TOTALS	6,800 boats	14,955 contacts	6,532 hours

2005-2008 CBCW Summary.

Year	Number of landings*	Total Boats	Total Contacts	Total Hours Effort
2005	15	2,035	3,942	1,090
2006	16	1,290	2,850	1,191
2007	22	5,355	11,867	3,062
2008**	31	6,800	14,955	6,532

^{*} Where landing coverage was known to occur at least once, whether or not data was entered in SWIMS.

^{**}WDNR Bureau of Law Enforcement Water Guard Program began.

Appendix E

List of Lake Associations

Lake Groups with regular interactions with AIS Project

Lake Group Name	Acronym*	Website	Established
Bayfield County Lakes Forum	BCLF	http://www.bayfieldcountylakes.org/	1999
Bony Lake Association		http://www.bonylakewi.org/	2008
Cable Lakes Association	CLA	via BCLF site	1995
Delta Area Lakes Association	DALA		2002
Diamond Lakers, Inc.		http://www.diamond-lakers.org/	Not sure
Half Moon Lake P & R District			1978
Iron River Area Lakes	IRALA		Not sure; referred
Association			by other names,
			pre 1990
Lake Owen Association, Inc.	LOA	http://lakeowenassociation.com/	2000
Long Lake Property Owners	LLPOA		Pre 2004
Association			
Marengo Lake Association			2008
Namakagon Lake Asso., Inc.	NLA	http://nlaonline.org/	1995
Property Owners Association			1975
Barnes/Eau Claire Area Lakes			
Town of Barnes EWM Com.		http://www.barnes-wi.com/page.cfm/43	2005
Tri Lakes Protective Assn.	TLPA	via BCLF site	1920

^{*} the acronym the lake group uses itself.

Other Known lake groups in the county

Lake Group Name	Established
Cisco Lake Association	Pre-2000
Kelly Lake	
Lake Ahmeek	
Lake Tahkodah District	1976
Pigeon Lake Association	1980
Price Lake Association	2007
Potawatomi Property Owners Association	
Spider Lake	

Attachments - Contents

1. AIS-related County Resolutions & Amendatory Ordinances

[A list, then 3 files of all documents in order as the list]

2. AIS Committee Minutes

[A list of meeting dates, than yearly files of all meetings w/in that year]

3. Strategic Planning Process Communications

Letters of solicitation for comments to:

Agencies

Municipalities

County Departments

Lake Groups

Chambers

Comments received

Informational Meetings

Press Release

Meeting Outline

Comment form

Presentation

4. Reports to the Land Conservation Committee

[Listed chronologically]

5. Yearly Reports within LWCD Annual Reports

[2007 & 2008, AIS embedded in full report]

6. Presentations

Workshops

Outreach

Display Boards

[file name denotes event]

7. Press Releases

[Files of most]

8. Local Newspaper Articles

[a few documents of scanned articles]

9. Email Broadcasts

[Samples of]

10. Miscellaneous Communications

[Certificate of Appreciation, official letters, support letters]

11. Miscellaneous Handouts

[Workshops, outreach, educational]